PN - JP57065184 A 19820420
PD - 1982-04-20
PR - JP19800141406 19801009
OPD - 1980-10-09
TI - STABLE IMMOBILIZED ADENYLATE KINASE COMPOSITE AND ITS PREPARATION
IN - IMAHORI KAZUTOMO; NAGATA KAZUHIKO; NAKASHIMA HIROSHI
PA - IMAHORI KAZUTOMO; RIKAGAKU KENKYUSHO; UNITIKA LTD
IC - C12N9/12 ; C12N11/00

TI - Heat resistant and stable adenylate kinase - obtd. by cultivation of Bacillus stearothermophilus
PR - JP19800141406 19801009;JP19800141405 19801009
PN - EP0050007 A 19820421 DW198217 Eng 056pp
- JP57065181 A 19820420 DW198221 000pp
- JP57065184 A 19820420 DW198221 000pp
- DK8104459 A 19820524 DW198224 000pp

-CA1173768 A 19840904 DW198440 000pp
-EP0050007 B 19860205 DW198606 Eng 000pp
-DE3173725G G 19860320 DW198613 000pp
-US4584272 A 19860422 DW198619 000pp
-JP1054995B B 19891121 DW198950 000pp
-JP2005391B B 19900201 DW199009 000pp
-DK165702B B 19930104 DW199306 C12N9/12 000pp
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C-C12N9/12 C12R1/07
IC-C12N9/12 ;C12N11/02 ;C12P19/32 ;C12R1/07
IN-IMAHORI K; NAGATA K; NAKAJIMA H; HIROSHI N; KAZUHIKO N; KAZUTOMO I

AB-EP--50007 Heat-resistant adenylate kinase (AK) retaining at least 80% of its original activity after incubation in buffer soln. at 50 deg.C for 15 mins. is new.
-The AK is obtd. by cultivating a Bacillus strain, esp. B. stearothermophilus, in a nutrient medium. The cultivation is pref. effected continuously under conditions such that the dilution ratio is at least 0.9 of the max. specific growth rate (l/hr).
-The AK has higher and more prolonged stability than the enzymes obtd. previously, and it can be readily immobilised to give a prod. having good operational properties. The AK, esp. when immobilised, is useful in the prodn. of ATP from ADP or AMP in bioreactor systems.
EPAB-EP--50007 Heat-resistant adenylate kinase (AK) retaining at least 80% of its original activity after incubation in buffer soln. at 50 deg.C for 15 mins. is new.

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USAB-US4584272 Heat-resistant adenylate kinase is produced, by (a) cultivating a bacterium of the genus Bacillus; and (b) collecting prod. whose activity after incubation in a buffer soln. at 50 deg.C for 15 mins. is 80% or more of original activity before incubation.

-Pref. cultivation is performed continuously such that dilution rate D, is 0.9 (mu)max or more, where (mu)max is the max. specific growth ratio (l/hr) of bacterium under continuous cultivation. Bacterium is B. stearothermophilus. Enzyme prod. is purified and/or immobilised on a water-insoluble carrier by a covalent bond.
-ADVANTAGE - Can be stored for a long oeriod of time. (12pp)
OPD-1980-10-09
CT-5.Jnl.Ref;No-SR.Pub;3.Jnl.Ref
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IN-IMAHORI KAZUTOMO; others: 02
PA-IMAHORI KAZUTOMO; others: 02
TI-STABLE IMMOBILIZED ADENYLATE KINASE COMPOSITE AND ITS PREPARATION

AB - PURPOSE:Heat-resistant adenylate kinase is immobilized by binding or adsorbing it to a support to produce immobilized adenylate kinase with long-lasting stability as well as improved operability on immobilization and increased economical efficiency.

- CONSTITUTION:A strain in Bacillus stearothermophilus, whose optimal growing temperature is about 50-85 deg.C, is cultured and the cells produced are treated in a buffer solution at about 50 deg.C for about 15min to collect heat-resistant adenylate kinase of more than 80% activity. The adenylate kinase is bound to or adsorbed on a water-insoluble support to produce immobilized adenylate kinase composite.

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I - C12N11/00